

## **FOPS Conference Schedule**

**Sunday, July 31**

7:30 PM. Conference Reception

## **Monday, August 1**

8:00 AM. Registration

9:00 AM. Welcome

9:10 AM. Tutorial on Metamaterials

9:10. M. Wegener, "Photonic metamaterials and transformation optics" (P)

10:10 AM Coffee Break

10:30 AM. Quantum Dots I (Chair: T. Norris)

10:30. G. Solomon, "Two-photon interference from separate quantum dots" (I)

11:05. W.W. Chow, "Observation of pronounced Rabi splitting from electrically-excited, surface-plasmon coupled, conduction-state transitions in quantum dots" (C)

11:25. M.-R. Dachner, "Phonon sidebands in single semiconductor quantum dot luminescence spectra" (C)

11:45. B. Sun, "Persistent optical nuclear spin narrowing" (C)

12:30 PM. Lunch

1:30 PM. Break

5:00 PM. Dinner

6:30 PM. Graphene and Carbon (Chair: J. Kono)

6:30. T. Heinz, "Seeing electrons in two dimensions: Optical spectroscopy of graphene" (I)

7:05. S. Koch, "Excitonic effects in semiconductors and graphene" (I)

7:40. K.M. Rao, "Coherent optical control of photocurrents in graphene in a magnetic field" (C)

8:00 PM. Coffee Break

8:15. T. Norris, "Ultrafast spectroscopy and coherent control in epitaxial graphene" (I)

8:50. J. Wang, "Femtosecond perfect transparency and stimulated emission of dense Dirac fermions in graphene" (C)

## **Tuesday, August 2**

### 8:00 AM. Spins I (Chair: P. Hawrylak)

8:00. L. Sham, "Stabilization by an excited hole of a nuclear spin bath for an electron spin" (P)

9:00. D. Gershoni, "Writing, reading, and controlling the spin state of single electrons using a single picosecond laser pulse" (I)

9:35. C.H. Van der Wal, "Quantum optics with donor-bound electrons" (C)

10:00 AM. Coffee Break

### 10:30 AM. Excitons and Polaritons I (Chair: G. Khitrova)

10:30. B. Deveaud-Pledran, "Vortices in polariton quantum fluids" (I)

11:05. J.J. Baumberg, "Novel microcavities: polaritonics MEMS at room temperature and nonlinear strongly-coupled Bragg polaritons" (I)

11:40. J. Kono, "Superfluorescence from ultrahigh density excitons in quantum wells" (I)

12:15. O. Berman, "Bose-Einstein condensation of microcavity polaritons and drag effect" (C)

12:35 PM. Lunch

1:30 PM. Break

### 2:00 PM- 4:30 PM. Poster Session

5:00 PM. Dinner

### 6:30 PM. Excitons and Polaritons II (Chair: H. Wang)

6:30. P. Wen, "High-order two-dimensional spectroscopy of exciton-polaritons" (I)

7:05. S. Cundiff, "Optical multidimensional Fourier transform spectroscopy of semiconductors" (I)

7:40 PM. Coffee Break

7:55. W. Langbein, "Two-dimensional nonlinear imaging of quantum dots: Polarization dynamics and coherent coupling" (I)

8:30. T. Meier, "Microscopic investigation of injection currents in (110)-oriented GaAs/AlGaAs quantum wells" (I)

## **Wednesday, August 3**

### 8:00 AM. Photonic Resonators (Chair: P. Michler)

8:00. K. Vahala, "Ultra-high-Q microcavities and applications" (P)

9:00. H. Wang, "Optomechanical light storage in a silica resonator" (I)

9:35. W. Vos, "3D photonic band gap crystals: islands of tranquility in a fluctuating vacuum" (I)

10:10 AM. Coffee Break

### 10:30 AM Novel Light Sources (Chair: S. Cundiff)

10:30. A. Leitenstorfer, "Femtosecond quantum optics with semiconductor nanosystems" (I)

11:05. M. Kira, "Quantum optical spectroscopy of Schrödinger cat states" (I)

11:40. P. Vasa, "Coherent ultrafast Rabi oscillations in metal J-aggregate nanostructures" (C)

12:00 PM. Lunch

1:00 PM. Excursion

7:00 PM. Conference Banquet

## Thursday, August 4

### 8:00 AM Quantum Dots II (Chair: S. Koch)

8:00. Y. Arakawa, "Cavity quantum electrodynamics in coupled single-quantum dot 2D/3D photonic crystal nanocavity systems" (P)

9:00. C. Gies, "The single quantum dot emitter in the high excitation regime" (C)

9:20. S. Reitzenstein, "Nonlinear optical processes in high quality quantum dot micropillar systems" (I)

9:55. R. Rapaport, "From weak to strong coupling of quantum emitters in metallic nanoslit Bragg cavities" (C)

10:15 AM Coffee Break

### 10:30 AM Excitons and Polaritons III (Chair: D. Snoke)

10:30. H. Stolz, "Exciton dynamics in potential traps and the possibility of Bose-Einstein condensation" (I)

11:05. M. Kuwata-Gonokami, "Relaxation explosion of a Bose-Einstein condensate of excitons in  $\text{Cu}_2\text{O}$ " (I)

11:40. R. Binder, "Exciton spectroscopy of mechanically deformed GaAs nanomembranes" (C)

12:00. B. Nelsen, "Enhanced effects of strain on exciton-polaritons in semiconductor microcavities" (C)

12:30 PM Lunch

5:00 PM Dinner

### 6:30 PM Spins II (Chair: A. Leitenstorfer)

6:30. Th. Rasing, "Ultrafast optical manipulation of spins: Challenges and opportunities" (I)

7:05. I. Perakis, "A proposal for all-optical magnetization reversal in (Ga,Mn)As ferromagnetic semiconductors" (I)

7:40 PM Coffee Break

7:55. M.-W. Wu, "Spin relaxation and spin transport in graphene" (I)

8:30. X. Cui, "Spintronics study in III-V semiconductors" (I)

8:55. H. Zhao, "Nonlinear optics with ballistic currents in semiconductors" (C)

## **Friday, August 5**

### 9:00 AM. Quantum Dots III (Chair: F. Jahnke)

9:00. P. Michler, "Coherence and photon statistical properties of the Mollow triplet sideband emission of a quantum dot" (I)

9:35. P. Hawrylak, "Hidden symmetries in optical properties of semiconductor and graphene quantum dots" (I)

10:10. M.A. Dupertuis, "Symmetries and the optical spectrum of exciton complexes in quantum dots" (C)

10:30. H. Tong, "Theory of excitons in cubic III-V semiconductor GaAs, InAs, and GaN quantum dots: Fine structure and spin relaxation" (C)

### 10:50 AM. Conference Closing

12:00 PM. Lunch